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Authentic leadership in sport: Its relationship with athletes' enjoyment and commitment and
the mediating role of autonomy and trust

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Abstract

Consequences of leadership styles have become a noteworthy area of research for sport psychology researchers. However, there is scant research on the concept of Authentic Leadership (AL). To date, research in sport has demonstrated that AL is associated with positive outcomes for athletes such as satisfaction, commitment, trust and perceptions of choice. In this study, we examined whether athletes' perceptions of coach AL were associated with their commitment and enjoyment and whether trust in coach and perceived autonomy mediated these relationships. Participants were 435 athletes (female = 211) from team (e.g., football, hockey; $n = 338$) and individual sports (e.g., boxing, swimming; $n = 97$) who completed questionnaires about perceived AL of their coach, perceived autonomy and trust in their coach, and their enjoyment and commitment. Structural equation modelling revealed that athletes' perceptions of their coach AL were positively related to their enjoyment and commitment and these relationships were mediated by perceived autonomy and trust. The findings suggest that AL in coaches may facilitate enjoyment and commitment in athletes, and this may occur via autonomy and trust.

Keywords: athlete well-being, integrity, coaching

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Authentic leadership in sport: Its relationship with athletes' enjoyment and commitment and the mediating role of autonomy and trust

Over the past decade, the field of leadership has emerged as a salient area of research and covers an increasingly diverse range of topics relevant to success in sporting domains. This is in response to the demand in the understanding of coaching behaviours and consequences of these behaviours on athletes.¹ Athletes' perceptions of a coach directly regulate behavioural responses, and factors such as trust in a coach and autonomy-supportive environments could have consequences for athletes.² Authentic leadership (AL) is a construct that has caught researchers' attention and has gained recognition and position within leadership studies in sport.^{3,4,5}

AL has been defined as a "pattern of leader behaviour that draws upon and promotes both positive psychological capacities and a positive ethical climate, to foster greater self-awareness, internalized moral perspective, balanced processing of information and relational transparency on the part of leaders working with followers, fostering positive self-development".³ According to Walumbwa and colleagues, AL can best be represented as a higher order construct composed of four related dimensions: internalized moral perspective, self-awareness, relational transparency, and balanced processing.³ Self-awareness refers to how often the leader demonstrates that he or she is cognizant of his or her impact on other people; relational transparency involves promoting trust through disclosures that include openly sharing information and expressions of leaders' true thoughts and feelings; internalized moral perspective refers to leader behaviours that are guided by internal moral standards and values as opposed to those behaviours being based on external forces such as peers, organizational and societal pressures; and balanced processing involves objectively analysing all relevant information before coming up with a 'fair' decision.^{6,7,8} Leaders who

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exhibit balanced processing solicit views from others indicating the willingness to challenge their deeply held positions before coming to a decision.³

AL originated from Bass & Steidlmeier's observation and critique of the unethical way transformational leaders manipulate their followers.^{9,7} Although transformational leadership requires authenticity as part of their characteristics of being visionary and of high moral character, the distinction between the two lies on the faith of authentic leaders in their own deep sense of self-values and beliefs.⁶ Therefore, an authentic leader "leads with purpose" and takes more consideration of contextual and organizational factors that influence the effectiveness of leadership and ensures the psychological well-being of followers.¹⁰ Moreover, AL is not limited to the authenticity of leadership, but it extends to authenticity of true sustainable leader-follower relationship or "followership" that enhances the performance of leadership at different levels.¹¹

To date, research supports the notion that coaches who are viewed to be authentic create transparent two-way relationships with athletes.^{4,5} Through the creation of these meaningful relationships, authentic leaders raise levels of follower commitment, motivation, and positive emotion, and subsequently facilitate positive follower behaviour.⁶ The integrity, respectability, and trustworthiness of authentic leaders constitute the central elements of high-quality exchange relationships.¹¹ For example, by eliciting diverse viewpoints from followers, authentic leaders are viewed as showing respect for and trust in each of their followers. This gesture is likely to be reciprocated by respect and trust on the part of followers.¹²

Only two studies have investigated AL in sport. Houchin examined whether AL predicted higher levels of trust, team cohesion, and group performance in 109 student athletes most of whom were females, from various team sports.⁵ An adapted and abbreviated version of the authentic leadership questionnaire (ALQ) was used, trust, perceived performance were

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measured using single item measures in addition to task and social cohesion.¹³ Athletes who perceived their coach to be authentic reported greater trust in the coach; this in turn positively predicted their perceptions of group cohesion and performance. In a second study, coach AL was associated with trust, perceptions of choice, commitment and satisfaction in a heterogeneous sample of 532 team sport athletes.⁴ In this study, athletes who perceived their coach to be authentic reported higher commitment and satisfaction. Coach AL, commitment and satisfaction were indirectly related via trust and perceived choice.⁴ Taken together results from these two studies suggest that AL may have important consequences in the context of sport.^{4, 5}

AL, enjoyment, and commitment

AL is associated with affective responses, such as attitudes, and emotions.⁷ Coaches perceived to be authentic could result in athletes feeling more motivated and connected with their coach through positive role modelling and mutual respect and trust.¹¹ Due to these positive relationships, they may experience enjoyment, which is a positive emotional response to sport and includes feelings such as fun, pleasure, and liking.¹⁴

Through the creation of meaningful relationships, authentic leaders allow followers to share a deeper understanding with a leader and therefore aid the promotion of positive emotional states, such as enjoyment.¹¹ AL is characterised by a leader's ability to provide constructive feedback, remain hopeful and confident, authentic leaders are able to influence optimism and positive emotions such as enjoyment in followers.⁶ There is scant research to support the relationship between AL and enjoyment in athletes. AL research has focused on levels of follower satisfaction as a positive emotional outcome.^{3, 10} In sport, coach AL has been found to be directly related to satisfaction in athletes.⁴ These findings pave the way for future studies to examine other positive emotional states, such as enjoyment.

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AL may also influence athlete commitment, which reflects the desire and resolve to persist in a sporting endeavour over time.¹⁵ This is because authentic leaders demonstrate an understanding of strengths and weaknesses; they gain an insight into the self through exposure to others and being cognizant of one's impact on other people.^{7,8} With clarity and understanding of their capabilities, and with the willingness to be self-aware, a coach viewed to be authentic will be less likely to engage in defensive behaviors and more likely to correct personal predispositions. Research has shown that these characteristics potentially increase commitment in followers of authentic leaders.¹⁶ Furthermore, authentic leaders have been shown to encourage followers to identify with the core values of the collective organization that they represent in addition to the leader.¹¹ Thus, authentic coaches may stress the importance of attending to the shared interests of the team and individual leading to commitment. Previous research has shown that coach AL is indirectly related to commitment via trust and perceptions of choice.⁴

Trust and autonomy as mediators

In this study, we expect AL to be related to enjoyment and commitment in athletes directly, but also indirectly, through trust in the coach. Trust has been defined as athletes' perceptions of the integrity, credibility, and benevolence of the coach.¹⁷ Trustworthiness is proposed to be an intrinsic feature of AL.⁷ Previous research has provided evidence to support the relationship between athletes' perceptions of AL and trust.^{4,5} These findings suggest that coaches who do not show consistency between words and actions, or who frequently lie, will hardly be trusted by their athletes. On the contrary, authentic leaders are expected to build trust in their followers via their supporting behaviour.¹⁸

Recent research supports the importance of trust as an intervening variable when examining consequences of AL on athlete outcomes.⁴ These researchers found that coaches who were perceived to be authentic, openly communicated with their athletes, were honest

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and acted in a way that is consistent with their beliefs, had athletes who reported greater trust. Furthermore, athletes who felt that they could freely share their ideas, feelings, and hopes considered their coach to be trustworthy, which in turn was associated with commitment and satisfaction. Based on these findings and the theoretical predictions of AL, we expect trust to mediate the relationship between AL and enjoyment in athletes.³

We also expect AL to be related to enjoyment and commitment in athletes indirectly via autonomy. Autonomy refers to “being the perceived origin or source of one’s own behaviour”¹⁹ is one of the three basic psychological needs specified in the self-determination theory (SDT), and encompasses three aspects.^{20,21} First, internal perceived locus of causality (IPLOC) indicates whether a person believes that his or her actions are initiated and regulated by a personal force.²¹ Second, volition refers to an unpressured willingness to engage in an activity.²¹ Finally, perceived choice pertains to the perception of having decision-making flexibility to choose whether to engage in an activity.²¹ Autonomy is satisfied when one is provided with choice over actions, perceived control and an active role in the decision-making process.²⁰

According to SDT, one of main intrinsic needs that motivate athletes to initiate behaviour and contribute to psychological health and wellbeing is autonomy.¹⁹ SDT research suggests that when leaders create autonomy-supportive environments, follower actions become self-determined. Self-determined behaviour has been extensively linked with enjoyment, enhanced effort, and commitment in the context of sport.² Previous research has shown that out of the three basic psychological needs the influence of autonomy was rated higher in supervisors viewed to be authentic.⁶ Furthermore, autonomy positively affected intrinsic motivation which was also associated with organisational commitment, satisfaction and trust in leaders viewed to be authentic.¹⁰ In sport perceived choice was a mediator in the relationship between athletes’ perceptions of AL and commitment and satisfaction in a recent

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study.⁴ However, previous research has not investigated the overall construct of autonomy considering its different aspects. The current study aims to address this limitation.

The Present Study

As the literature reviewed above indicates, AL is an important construct that has features not evident in other models used to understand leadership in sport. Specifically, this is the only leadership construct that encompasses a moral component (i.e., internalized moral perspective) as well as transparency in the interactions of the leader with followers. Together with the focus on enhancing self-awareness and objectively analysing information these features make AL a unique construct that could have implications for important athlete outcomes. However, to date, this construct has received very little attention in the context of sport. This form of leadership can increase well-being in athletes because it is a positive form of leadership.^{2,1}

Previous research found an indirect relationship between AL and commitment and satisfaction via trust and perceptions of choice in team sports.⁴ The current study aims to build on this research in several ways. First, this research will determine if previous findings are replicated with an independent sample of athletes. This is important because replication should attest to the robustness of the findings, thus increasing our confidence in them. Second, we will extend previous research in athletes from individual sports. Third, we will measure the construct of autonomy in a more complete manner as we will assess different aspects of this construct. We hypothesised that coach AL – as determined via athlete perceptions - would be positively associated with athlete enjoyment and commitment indirectly through trust and autonomy.^{3,4,7,11}

Method

Participants

Participants were 435 athletes who were members of the British universities and colleges sport (BUCS) league aged 18-44 years ($M_{age} = 19.94$, $SD = 2.08$), who rated 21

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coaches (32 % female). BUCS consists of two regional leagues and each sport can have up to four teams according to athletic ability from the same university or college competing. The sample included both female ($n = 208$) and male ($n = 227$) athletes from team sports (e.g., football, hockey; $n = 344$) and individual sports (e.g., boxing, swimming; $n = 97$). In total, 298 athletes had a male coach and 137 athletes had a female coach and on average they had been playing their sport for 10.95 years ($SD = 7.25$), played for their current team for 1.69 years ($SD = .96$) and played for their current coach for 1.63 seasons ($SD = 1.00$).

Measures

Authentic leadership. Authentic leadership in sport was measured using an adapted version of the 16-item Authentic Leadership Questionnaire that assesses the four dimensions of AL.³ We adapted the stem “My leader/supervisor...” to “My coach...” before each statement and minor changes to wording were made to some items to reflect the context (e.g., followers was changed to players). Example items included “encourages everyone to speak their mind” (relational transparency, five items), “demonstrates beliefs that are consistent with actions” and “makes decisions based on high standards of ethical conduct” (internalised moral perspective, four items), “seeks feedback to improve interactions with players” (balanced processing, three items), and “shows he or she understands how specific actions impact others” (self-awareness, four items). Participants were asked to respond to each statement regarding their coach’s leadership style on a 5-point Likert scale ranging from 1 (*not at all*) to 5 (*frequently if not always*). Walumbwa and colleagues have provided evidence of the internal reliability of the scale with each sub- scale (self-awareness $\alpha = .92$, relational transparency $\alpha = .87$, internalised moral perspective $\alpha = .76$, balanced processing $\alpha = .81$) and the overall 16-item scale, $\alpha = .70$.³ Previous research has confirmed the factorial validity of the ALQ with results from CFAs ($\chi^2 = 1865.31$, $df = 1214$, $\chi^2/df = 1.54$, $p < .01$, CFI = .97, RMSEA = .05) of the 4-factor model showing strong loadings (.84 to .90) on intended

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factors.⁸ Several studies have confirmed the factorial, discriminant, construct, nomological, face and content validity of the ALQ.²²

Trust. The Trust in Leader questionnaire developed by McAllister and adapted to sports settings by Dirks was utilised to measure perceptions of athletes' trust in their coach.^{23,17} Two adaptations were made to the original instrument based on interviews with basketball coaches. First, two items were dropped, as interviews with coaches suggested they would not apply to the sporting context. Second, minor wording changes were made to the retained items to reflect the context (e.g., the referent was changed to coach). The scale consists of nine items, and example items are: "I trust and respect my coach" and "I can freely share my ideas, feelings, and hopes with my coach". Participants were asked to think about their experiences with their coach, and to indicate their level of agreement with each statement on a Likert scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). The scales demonstrated adequate internal consistency for the trust questionnaire ($\alpha = .83$) and the adapted version for sport ($\alpha = .96$).^{23, 17} Factorial validity of the measure has been reported to be adequate with factor loadings ranging from .84 to .96.¹⁷

Autonomy. Autonomy was assessed using the Basic Needs Satisfaction in Sport Scale (BNSSS), which has ten items.²⁴ Participants responded to the stem: "Below are some sentences that describe personal feelings or experiences you might have regarding your sport". Participants indicated how true each of the statement was on a 7-point Likert scale 1 (*not true at all*) to 7 (*very true*). Autonomy is divided into three subscales, namely, internal locus of causality (IPLOC), perceived choice, and volition. Example items include: "In my sport, I have a say in how things are done" (autonomy – choice), "In my sport, I really have a sense of wanting to be there" (autonomy – IPLOC), and "I feel I participate in my sport willingly" (autonomy – volition). Initial research has supported acceptable reliability validity of the BNSSS (Cronbach's $\alpha = .61 - .82$).²⁴ This research also confirmed the factorial

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validity of the BNSS with factor loadings ranging from .80 to .89. Results from CFAs revealed the 3-factor model (χ^2 (32, N = 371) = 57.16, $p < .01$, NNFI = .99, CFI = .99, SRMR = .05, RMSEA = .05, RMSEA 90% CI = .03-.07) with item scores showing strong loadings on intended factors.²⁴ Preliminary evidence also supported the nomological validity of subscale scores.²⁴

Sport commitment. We measured sport commitment using the commitment subscale from the Sport Commitment Model.²⁵ The items are “How dedicated are you playing for this team?” with response options ranging from 1 (*not at all dedicated*) to 5 (*very dedicated*). “How hard would it be for you to quit playing for this team?” with response options ranging from 1 (*not hard*) to 5 (*very hard*). “How determined are you to play for this team?” with response options ranging from 1 (not at all determined) to 5 (*very determined*). “What would you be willing to do to keep playing for this team?” with response options ranging from 1 (*nothing at all*) to 5 (*a lot of things*). Participants were asked to think about their experiences with their current team and respond to each statement. The scale demonstrated adequate internal consistency ($\alpha = .89$).²⁵ Recent research has supported the factorial validity of the commitment subscale of the sport commitment model ($\chi^2 = 174.31$, $df = 1.14$, $\chi^2/df = 1.04$, $p < .01$, CFI = .99, RMSEA = .05) with factor loadings ranging from .88 to .92.²

Enjoyment. We assessed enjoyment with the four-item enjoyment subscale of the sport commitment model.²⁶ Example items are “Do you enjoy playing for this team?” and “Do you like playing for this team?” Responses were made on a Likert scale, with anchors of 1 (*not at all*) and 5 (*very much*). Participants were asked to think about their experiences with their current team and respond to each statement. The scale demonstrated factorial and discriminant validity and reliability ($\alpha \geq .90$) in past research.²⁶ CFAs ($d\chi^2/df: 1.01/2$, RFI:1.000, SRMR:0.003, RMSEA:0.000) conducted on recent data supports this early research with factor loadings for enjoyment ranging from .92 to .94.²⁷

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Procedure

Ethical approval to conduct this study was granted by the investigators' University School ethics committee. Head coaches were initially contacted by phone, email, or post with a brief description of the study purpose and permission to approach their athletes. Coaches then received a follow-up letter via post or email reiterating the purpose of the study, procedures for confidentiality, and example items to be used in the questionnaire pack. Upon permission from the coach, athletes were approached prior to, or after a training session. Athletes provided written consent, prior to completing the questionnaires which took approximately 15 minutes. Players were asked to respond to the questionnaire independently and as honestly as possible when thinking about their experiences with their current coach.

Results

Descriptive Statistics, Alpha Coefficients, and Zero-Order Correlations

Descriptive statistics, Cronbach's alpha coefficients, and zero-order correlations for all variables are presented in Table 1. On average, participants perceived their coach to display AL 'sometimes' to 'fairly often'. They also reported 'high' levels of trust and 'moderate' levels of autonomy, commitment, and enjoyment. All measures showed very good to excellent internal consistency (alpha range = .85 – .95). Values above .80 and .90, respectively, are considered as very good and excellent indicators of internal consistency, based on Kline's (2016) recommendations for interpreting reliability coefficients.²⁸ All variables had medium-to-large correlations with each other (see Cohen, 1992).²⁹

Confirmatory Factor Analysis

Before testing the hypothesized model that AL is related commitment and enjoyment indirectly via trust and autonomy. We examined the factorial structure of each scale. Confirmatory Factor Analyses (CFA) using the robust maximum likelihood method with EQS software were employed to ascertain the factor structure of the scales used.³⁰ A

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combination of fit indices were examined to determine the degree of model fit, including the Satorra-Bentler chi-square ($S-B\chi^2$), the Comparative Fit Index (CFI), the Standardized Root Mean Square Residual (SRMR), and the Root Mean Square Error of Approximation (RMSEA).³⁰ Previous research has proposed that acceptable fit of a hypothesized model to the data is indicated when the CFI is close to .95, the SRMR is close to .08, and the RMSEA is close to .06.³¹ However, it is worth noting that when testing complex models, these criteria may be overly restrictive.³² In addition, the RMSEA is sensitive to model complexity and often falsely indicates a poor fitting model in cases with small degrees of freedom.³³

CFAs of the scales assessing enjoyment ($S-B\chi^2 (2) = 5.30, p < .001$; CFI = 1.00; SRMR = .01; RMSEA = .06, CI = .00 – .13) and commitment ($S-B\chi^2 (2) = 5.16, p < .001$; CFI = .99; SRMR = .02; RMSEA = .06 CI = .00 – .13), demonstrated excellent model fit. Due to the hierarchical nature of the AL variable, a second order CFA was conducted.³ In this model, the first-order factors of relational transparency, internalised moral perspective, balanced processing, and self-awareness are explained by the higher order factor of authentic leadership. This model fitted the data well: $S-B\chi^2 (86) = 248.36, p < .001$; CFI = .92; SRMR = .05; RMSEA = .07 (CI = .06–.08). A similar second-order CFA was conducted for the autonomy variable, which consisted of three lower order factors (perceived choice, IPLOC and volition); this showed very good model fit: $S-B\chi^2 (32) = 73.10, p < .001$; CFI = .96; SRMR = .03; RMSEA = .05 (CI = .03–.07).

CFAs indicated that items tapping into the trust variable ($S-B\chi^2 (27) = 260.6, p < .001$; CFI = .80; SRMR = .07; RMSEA = .14, CI = .13 – .16) should be revised. Based on inspection of the standardized residual matrix and the modification indices, problematic items were removed one at a time and factor models were re-evaluated. Researchers have proposed this stepwise technique, as it maintains the factorial structure of a scale, while retaining only the best available indicators.^{34,35} Two items were omitted in the trust measure: ‘If I shared my

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problems with my coach he/she would respond constructively and caringly' and 'I can freely share my ideas, feelings and hopes with my coach'. It is important to note that the removal of these items from each scale can also be supported from a conceptual standpoint. The similarity in these items wording and another indicator with high factor loadings suggested these items were redundant and were removed. The revised model had good fit ($S-B\chi^2(14) = 67.79, p < .001$; CFI = .93; SRMR = .03; RMSEA = .09, CI = .07–.12).

Measurement model. The recommended two-step approach was adopted to test our hypothesis. Prior to testing the structural model, the psychometric properties of the measurement model were examined.³⁶ The measurement model tests the relationships between observed variables and their posited factors.³⁶ The measurement model consisted of all items ($N = 41$) measuring AL ($n = 16$), autonomy ($n = 10$), trust ($n = 7$), commitment ($n = 4$) and enjoyment ($n = 4$). This model fitted the data well $S-B\chi^2(514) = 566.67, p < .001$; CFI = .94; SRMR = .06; RMSEA = .02 (CI = .07–.11). Standardized factor loadings of the item indicators in the measurement model were all satisfactory ($>.40$) and ranged from .41 to .90 (median loading = .70).³⁷

Structural model. The proposed structural model (see Figure 1) was tested using the robust maximum likelihood estimation method (Mardia's normalized estimate of multivariate kurtosis = 212.08). Fit indices revealed that the data fitted the model well: $S-B\chi^2(725) = 1237.53, p < .001$; CFI = .93; SRMR = .07; RMSEA = .04 (CI = .03–.09), and all structural pathways were statistically significant. AL was directly related to both commitment and enjoyment respectively. AL was a strong positive predictor of trust and a moderate positive predictor of autonomy. In turn, trust was a moderate positive predictor of enjoyment and also a positive predictor of commitment. Autonomy was a moderate predictor of both commitment and enjoyment. Coach AL explained 55% of the variance in trust and 14% in

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autonomy, and in turn, AL, autonomy, and trust explained 23% of the variance in commitment, and 31% of the variance in enjoyment.

Mediation Analysis

We examined the mediating role of trust and autonomy using the bootstrapping procedure, with 1000 bootstrap samples and estimates of indirect effects.³⁸ A sampling distribution of the indirect effect was yielded, allowing for the point estimate, standard error, and bias-corrected (BC) confidence interval (CI) of the mediation effect. Bootstrapping allows for higher analytical power combined with lower risk of committing Type I error when testing indirect effects.³⁸ BC 95% confidence intervals were used in the present study for identifying significant mediation effects.³⁸ There is evidence of a significant effect when the bootstrap-generated 95% CI does not contain zero.^{38,39} AL significantly predicted commitment through trust ($\beta = .22$, 95% CI = .08 to .22) and autonomy ($\beta = .19$, 95% CI = .12 to .24). AL also significantly predicted enjoyment through trust ($\beta = .51$, 95% CI = .40 to .62) and autonomy ($\beta = .26$, 95% CI = .09 to .16). The percentage of the total effect accounted for by the indirect effect conveys the degree of mediation. The percentage of the total effect of AL on the outcome variables mediated by trust and autonomy was 68% for commitment and 61% for enjoyment.

Discussion

Previous research has provided evidence that coach AL facilitates an environment that enhances athletes' satisfaction, trust, commitment and perceptions of choice.^{4,5} The purpose of the study was to examine coach AL as perceived by athletes and whether this was related to their enjoyment and commitment indirectly through trust and autonomy. The adoption of novel conceptual models such as AL is often open to refutation.² Therefore, the main goal of this study was to extend and build upon previous research in support of the application of AL in the context of sport.^{4,5}

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1 **AL and Enjoyment**

2 Consistent with our hypothesis, athletes' perceptions of coach AL had positive direct
3 effects on their enjoyment. Athletes who perceive their coach to be open and honest and a
4 role model for high ethical standards could feel more motivated eliciting feelings such fun
5 and liking associated with enjoyment. This is in line with previous research where employees
6 working under authentic supervisors were reported to enjoy their work and were more
7 satisfied with the working atmosphere.¹⁰ Findings also support previous research in sport
8 which suggests that coaches who were viewed to be authentic had athletes who perceived
9 higher satisfaction, a positive psychological state linked to enjoyment.⁴

10 Within the current study, we found an indirect relationship between AL and
11 enjoyment via trust. This result suggests that coaches, who openly communicate with their
12 athletes, are perceived as and acting in a way that is consistent with their beliefs by being
13 honest may engender athletes' trust, and it may be because of this trust, that athletes
14 experience enjoyment. Specifically, interactions that develop between the coach and athlete
15 could nourish positive social exchanges by virtue of building credibility and winning the
16 respect and trust of followers.^{10,11,12} Our findings extend previous work by showing that the
17 process through which coaches may facilitate enjoyment is because AL elicits athletes' trust
18 which in turn makes them enjoy the experiences.^{4,5} This is also consistent with research on
19 coach-athlete relationships which support the idea that athletes are happier if they trust their
20 coach.⁴⁰

21 As predicted, the relationship between AL and enjoyment was also mediated by
22 autonomy. Athletes, who perceived their coaches as authentic leaders, did not feel forced or
23 coerced but rather, had a say in how things were done and participated willingly in pursuing
24 their own goals. Results suggest that through the satisfaction of autonomy, athletes are more
25 likely to be intrinsically motivated which builds up levels of confidence and persistence,

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which in turn could be related to enjoyment.^{6, 19} The indirect relationship between AL and enjoyment via autonomy is also an important finding as the current study encompasses all aspects of autonomy to explain its working in the hypothesised relationships.

AL and Commitment

Our results support our hypothesis that athletes' perceptions of AL were positively associated with commitment, replicating that of previous research.⁴ This result suggests that coaches viewed to be authentic could have athletes who feel more dedicated and determined because they are achieving their goals and objectives which are associated with commitment. In addition, athletes could feel more committed due to coaches being viewed as considerate of their individual wants, needs, and desires. Indeed, these findings are in line with prior research in organisational settings which has shown AL in supervisors had employees who reported higher commitment.¹¹ Furthermore, findings extend that of previous research in sport by showing a direct relationship between AL and commitment.⁴

We also found that athletes' perceptions of AL were related to commitment indirectly through trust. These findings substantiate those of previous work in showing that the process through which coaches enhance commitment in athletes is because AL elicits trust, in turn this trust leads commitment.⁴ Coaches viewed to be authentic leaders are likely to engender trust in their athletes. Results are consistent with the view that if athletes feel that can freely share their ideas, feelings, and hopes they may consider their coach to be trustworthy, and this could reinforce their commitment. Indeed, trust is crucial for successful coach-athlete relationships and the inclusion of individual sport in the current study supports the view that this may also be pertinent at this level.⁴¹

Mediation analysis also revealed an indirect effect of AL on commitment via autonomy. Results suggest that AL in coaches allows room for athletes to make choices and participate in their sport willingly, and in turn, the autonomy athletes may experience could

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lead to higher sport commitment. This is consistent with the view that autonomy promotes positive psychological states including enjoyment.²⁰ Our findings extend previous research by highlighting that coaches may lead to enjoyment in athletes since AL supports autonomy and because of is they enjoy their experiences.⁴

Limitations of the Study and Directions for Future Research

The present research revealed some interesting findings but also has some limitations. One limitation of the current study involves the cross-sectional design. There is a possibility that the direction of the relationships in this study may occur in some other fashion (e.g., AL-enjoyment- commitment) as data were collected on the same occasion. Thus, it will be important for future research to employ longitudinal designs to help provide a better understanding of the temporal order of study variables. Future research should examine AL and how relationships with athletes develop over time that could then be examined in terms of its impact on the mediators (trust and autonomy) and the outcomes (enjoyment and commitment). In addition, to fully test the direction of these relationships, the independent variable and the mediator could be manipulated in randomised experimental designs.⁴² An updated version of the original instrument to measure commitment and enjoyment, the sport commitment questionnaire-2 is recommended for future research.⁴³ Future research could examine other variables as consequences of AL (e.g., motivational orientation and team sacrifice).² From a SDT perspective, future research could include relatedness and competence. Finally, researchers could evaluate AL together with servant leadership given the importance of trust within both paradigms.

Conclusion

In conclusion, the results of this study demonstrate that athletes' perceptions of coach AL positively predict both enjoyment and commitment indirectly through autonomy and trust. Coaches viewed to be authentic may be perceived as trustworthy and inciting autonomy

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- 1 in athletes who as a result may experience enjoyment and are more committed.
- 2 Consequently, we need to find ways to encourage coaches to adopt AL as this may support
- 3 athletes' needs for autonomy and trust, promoting commitment and enjoyment.

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1 Table 1
2 *Descriptive Statistics, Cronbach's Alpha Coefficients, and Bivariate Correlations among all*
3 *Variables*

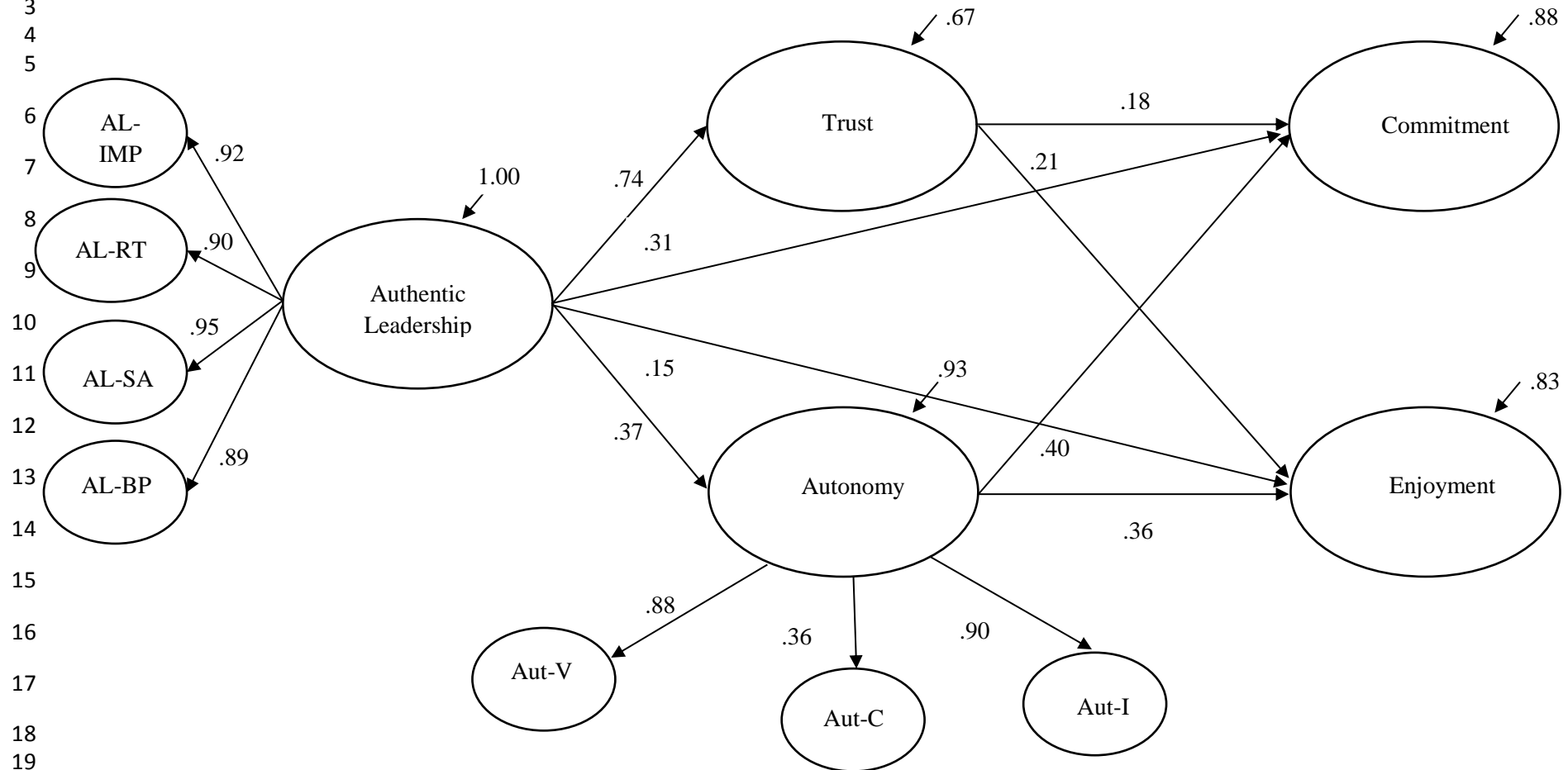
Variables	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9	10	11	12
1. AL	3.78	0.68	(.85)											
2. AL-IMP	3.86	0.87	.76*	(.83)										
3. AL-RT	3.89	0.63	.84*	.49*	(.86)									
4. AL-SA	3.76	0.77	.86*	.44*	.70*	(.84)								
5. AL-BP	3.62	0.74	.87*	.50*	.65*	.75*	(.83)							
6. Trust	5.70	1.08	.61*	.33*	.61*	.59*	.54*	(.87)						
7. Autonomy	5.50	0.82	.34*	.15*	.34*	.34*	.32*	.39*	(.85)					
8. Aut-V	6.44	0.73	.29*	.16*	.32*	.25*	.26*	.29*	.69*	(.84)				
9. Aut-C	4.48	1.32	.25*	.80*	.23*	.29*	.24*	.28*	.83*	.25*	(.82)			
10. Aut-I	4.43	0.75	.29*	.15*	.29*	.26*	.28*	.33*	.75*	.67*	.33*	(.83)		
11. Commitment	4.19	0.67	.21*	.15*	.20*	.20*	.16*	.30*	.40*	.22*	.31*	.36*	(.88)	
12. Enjoyment	4.59	0.58	.36*	.25*	.35*	.35*	.27*	.44*	.41*	.33*	.26*	.40*	.43*	(.95)

4 *Note.* Alpha coefficients are presented in the diagonal. Possible range of scores: 1 to 5 for AL
5 enjoyment and commitment and 1 to 7 for autonomy and trust. AL-RT, AL-IMP AL-BP, and
6 AL-SA refer to the four components of Authentic Leadership (Relational Transparency,
7 Internalized Moral Perspective, Balanced Processing, and Self-Awareness). Aut-V, Aut-C,
8 and Aut-I refer to the three components of autonomy (volition, choice and IPLOC).
9 * $p < .01$

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Figure 1

Structural model of the relationships between authentic leadership, trust, autonomy, commitment, and enjoyment.



Note. All regression coefficients are standardized. Solid lines represent significant and associations between constructs, respectively. For clarity of presentation, the individual indicators for all latent factors and the variances of the seven authentic leadership and satisfaction first-order factors are omitted. AL-RT, AL-IMP, AL-BP, and AL-SA refer to the four components of Authentic Leadership (Relational Transparency, Internalized Moral Perspective, Balanced Processing, and Self-Awareness, respectively). Aut-V, Aut-C, and Aut-I refer to the three components of autonomy (volition, choice and IPLOC).